

**Complete Listing of Claims:**

Claims 7-17: (Canceled)

18. (newly added) A substrate comprising:

- a) an array of electrodes, each comprising a binding ligand;
- b) a plurality of colloids, each comprising:
  - i) a binding ligand partner;
  - ii) an electron transfer moiety; and
- c) a target;

wherein said binding ligand, said binding ligand partner and said target are in a complex.

19. (newly added) A method for detecting a target analyte in a sample, said method comprising:

- a) contacting said sample with a substrate comprising:
  - i) an array of electrodes, each comprising a binding ligand;
  - ii) a plurality of colloids, each comprising:
    - A) a binding ligand partner,
    - B) an electron transfer moiety; and
- b) detecting electron transfer between said electron transfer moiety and at least one electrode of said array as an indicator of the presence of said target.

20. (newly added) The substrate of claims 18 wherein said plurality of colloids further comprise a self-assembling monolayer.

21. (newly added) The substrate of claim 20 wherein said self-assembling monolayer comprises an alkyl chain.

22. (newly added) The substrate of claims 18 wherein said substrate is a printed circuit board.

23. (newly added) A substrate according to claims 18 wherein said electrodes are gold.

24. (newly added) A substrate according to claims 18 wherein said ETM is a transition metal complex.

25. (newly added) A substrate according to claim 24 wherein said transition metal complex is ferrocene.

26. (newly added) A substrate according to claims 18 wherein said ETM is an organic ETM.

27. (newly added) A substrate according to claims 18 wherein said binding ligand is a first nucleic acid and said binding ligand partner is a second nucleic acid.

28. (newly added) The substrate of claims 19 wherein said plurality of colloids further comprise a self-assembling monolayer.

29. (newly added) The substrate of claim 28 wherein said self-assembling monolayer comprises an alkyl chain.
30. (newly added) The substrate of claims 19 wherein said substrate is a printed circuit board.
31. (newly added) A substrate according to claims 19 wherein said electrodes are gold.
32. (newly added) A substrate according to claims 19 wherein said ETM is a transition metal complex.
33. (newly added) A substrate according to claim 32 wherein said transition metal complex is ferrocene.
34. (newly added) A substrate according to claims 19 wherein said ETM is an organic ETM.
35. (newly added) A substrate according to claims 19 wherein said binding ligand is a first nucleic acid and said binding ligand partner is a second nucleic acid.